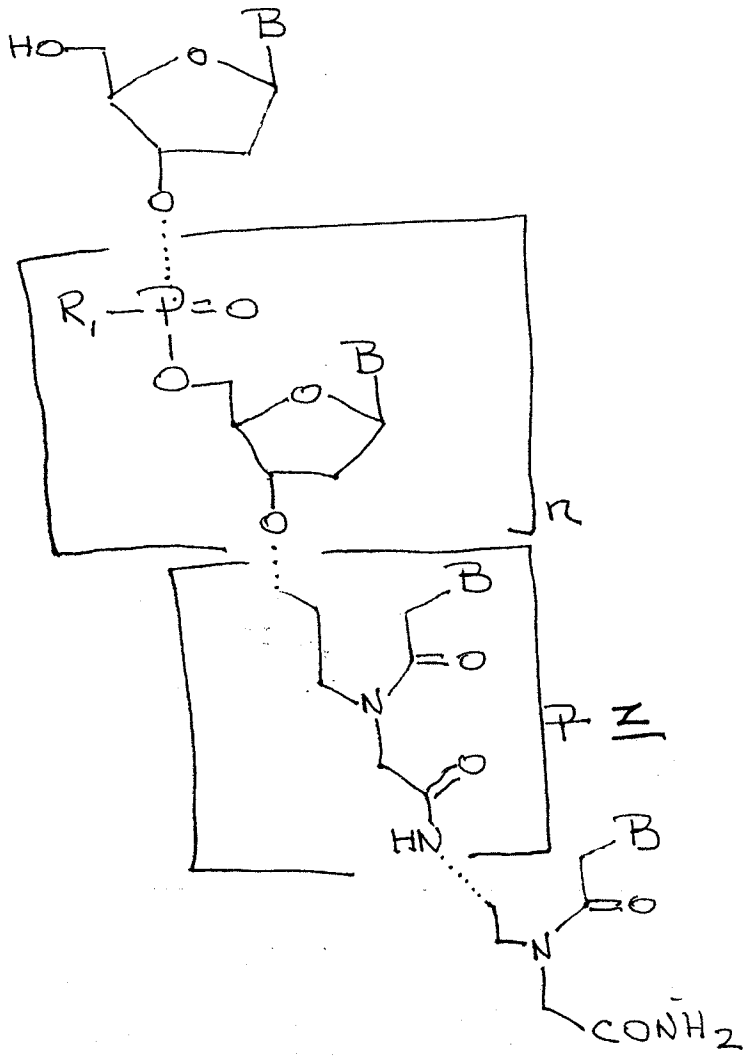
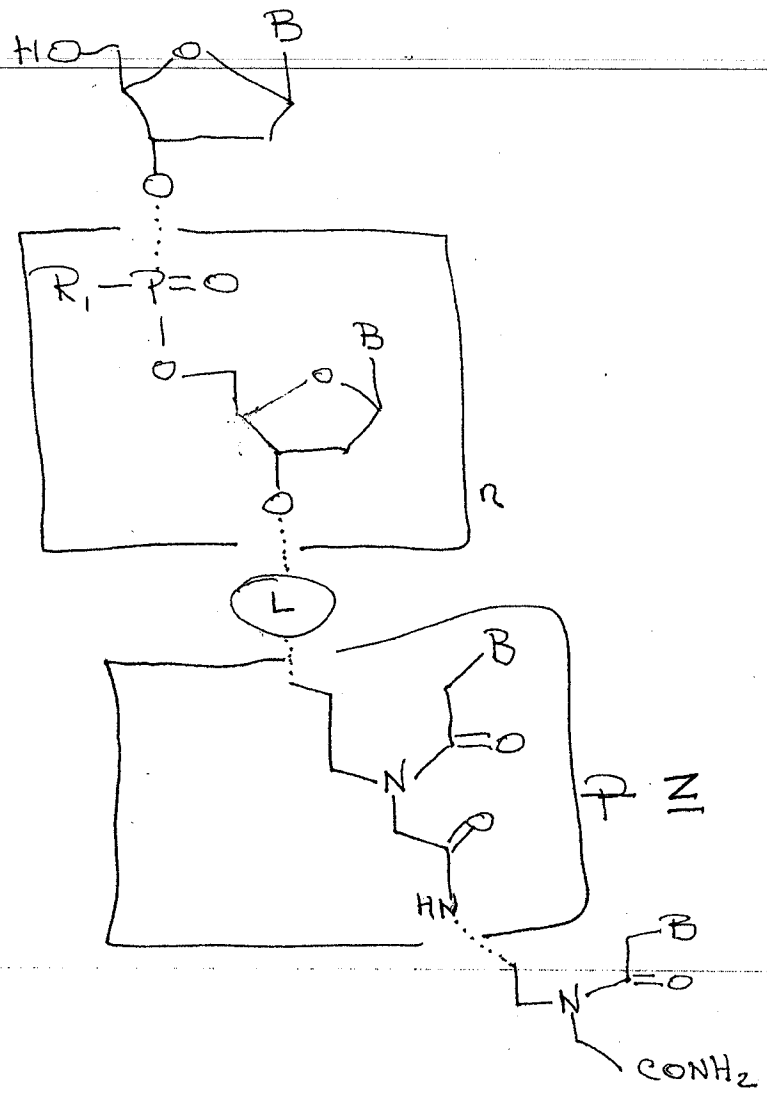
II. **CLAIMS:**

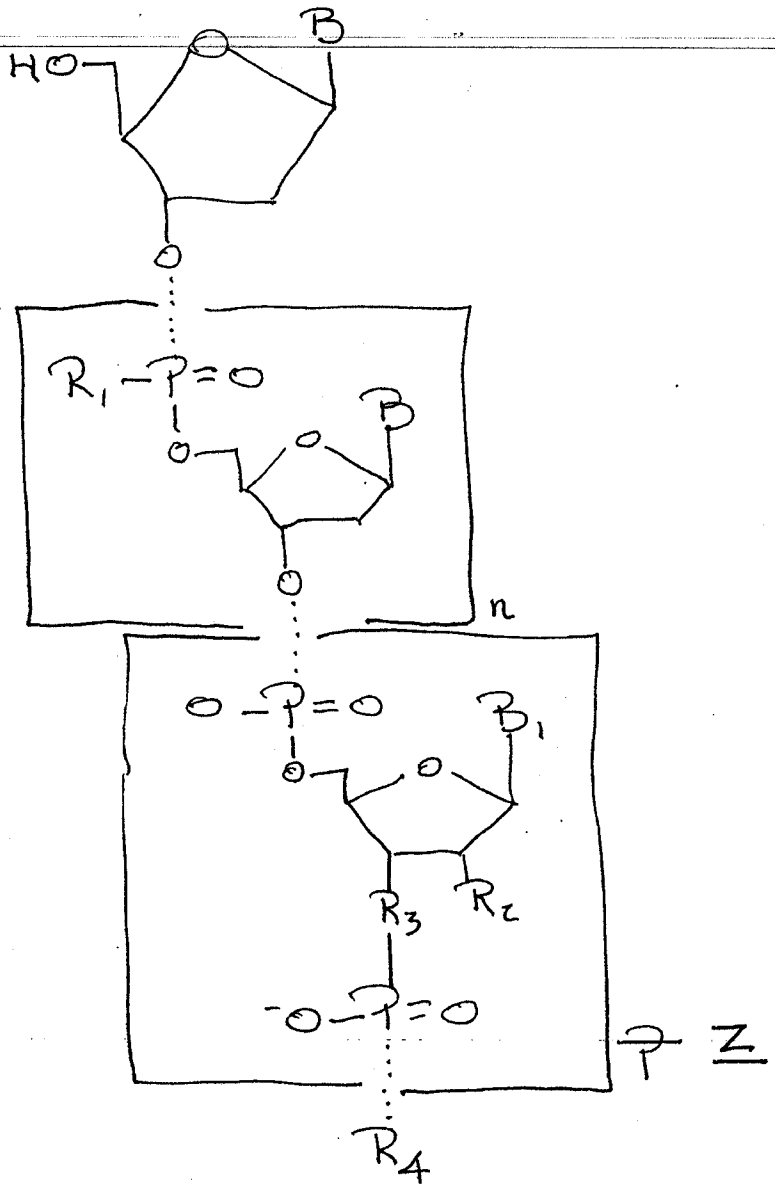
1. (Currently amended) Chimeric oligonucleotides of the formula I, II or III



I



II



III

and wherein

n is at least 10 and not more than 20,

R_1 is selected from the group consisting of S^-, CH_3, and O^-, where at least one R1 is S^-,

B is selected from the group consisting of thymine, cytosine, adenine, and guanine,

[[p]] z is at least 3 and not more than 17,

B_1 is selected from the group consisting of thymine, cytosine, adenine, guanine, 5-propyluracil, and 5-propylcytosine,

R_2 is selected from the group consisting of H, F, NH_2, O-alkyl (C_1 - C_5), O-allyl, and O-methoxyethoxy,

R_3 is selected from the group consisting of NH and O, wherein if R_3 is NH, R_2 must not be selected from the group consisting of NH_2, O-alkyl (C_1 - C_5), O-allyl, and O-methoxyethoxy,

R_4 is selected from the group consisting of 2',3'-dideoxy-3'-fluoroguanosine, 2',3'-dideoxy-3'-azidoguanosine, 2',3'-dideoxy-3'-aminoguanosine, 2',3'-acyclovir, gancyclovir, 2'-deoxyadenosine, 2'-deoxyguanosine, 2'-deoxycytidine, and 2'-deoxythymidine,

L is selected from the group consisting of $[=]-(PO_2)-OCH_2-COH-CH_2-NH-$ and $-(PO_2)-OCH_2-CH(CH_2COOH)-(CH_2)_4NH-$

and wherein each chimeric oligonucleotide inhibits telomerase activity.

2. (Previously Presented) The oligonucleotides according to claim 1 of formula I or II.

3-4. Cancelled

5. (Original) The oligonucleotides according to claim 1, wherein R_1 to R_4 and B and B_1 vary from a nucleotide unit to another nucleotide unit.

6. (Currently Amended) The oligonucleotides according to claim 1, wherein the oligonucleotides having a nucleotide sequence is ~~selected from the group consisting of~~

~~5′-TCAGATTAGTACTCGTCAGAGTTAGGGTTAG-3′ (SEQ ID No. 1)~~

~~5′-TCAGATTAGGACTGCTCAGAGTTAG-3′ (SEQ ID No. 2)~~

~~5′-TCAGATTAGTACTCGTCAGACAGTTAGGGTTAG-3′ (SEQ ID No. 3)~~

~~5′-TCAGATTAGTACTCGTCAGAGTTAGAGTTAG-3′ (SEQ ID No. 4)~~

~~5′-TCAGATTAGGACTGCTCAGAGUUAG-3′ (SEQ ID No. 5)~~

~~5′-TCAGATTAGGACTGCTCAGAUAGUUAG3′ (SEQ ID No. 6)~~

~~5′-TCAGATTAGGACTGCTCAGAGUUAGGGTTAGACAA-3′ (SEQ ID No.7)~~

~~5′-TCAGATTAGGACTGCGTTAGGGTTAGACAA-3′ (SEQ ID No. 8)~~

~~5′-TCAGATTAGTACTCGTCAGA-O(PO_2)OCH_2CH(CH_2COOH-(CH_2))$_4$-NH-TAGGGTTAGACAA-3′ (SEQ ID No. 9)~~

~~5′-TCAGATTAGTACTCGTCAGAGTTAGGGTTA-azidodeoxyguanosine-3′ (SEQ ID No. 10)~~

~~5′-AATCCTCCCCCAGTTCACCC- GTTAGGGT-3′ (SEQ ID No. 11)~~

~~5′-TCTCCCAGCGTGCGCCAT- GUUAGGGUUAG-3′ (SEQ ID No. 12)~~

~~5′-ATGTATGCTGTGGCT- n(L) -GTTAGG-3′ (SEQ ID No. 13)~~

~~5′- GTACTGCTCAGA-GTTAGGGTTAG-3′ (SEQ ID No. 14)~~

~~5′- GTACTGCTCAGA-GTTAGGGT-3′ (SEQ ID No. 15)~~

5′- GTACTGCTCAGA-GUUAGGGUUAG-3′ (SEQ ID No. 16)

~~5′- GTACTGCTCAGA-n(L)-GTTAGG-3′ (SEQ ID No. 17)~~

~~5′-GGCCAGCAGCTG- GUUAGGGUUAG-3′ (SEQ ID No. 18)~~

~~5′- TGCTCAGA-GUUAGGGUUAG-3′ (SEQ ID No. 19)~~

~~5′- TGCTCAGA-n(L)-GTTAGG-3′ (SEQ ID No. 20)~~

~~5′- TCAGACATATACTGCTCAGA-n(L)-TAGGGTTAGACAA-3′ (SEQ ID No. 21)~~

~~5′- ACT GCT CAG A-GTT AG-3′ (SEQ ID No. 22)~~

~~5′- ACT GCT CAG A-GUU AGG GUU AG-3′ (SEQ ID No. 23)~~

~~5′- ATA CTG CTC AGA-linker-GTT AGG GTT AG-3′ (SEQ ID No. 24)~~

~~5′- TTA GTA CTG CTC AGA GTT AGG GTT AG-3′ (SEQ ID No. 25)~~

~~5′- TCA GAT TAG TAC TGC TCA GA-GTT AG-3′ (SEQ ID No. 26)~~

~~5′- TCA GAT TAG TAC TGC TCA GA-GTT AG-3′ (SEQ ID No. 27)~~

~~and~~

~~5′-ACT GCT CAG A-GTT AGGGTTAG-3′ (SEQ ID No. 28)~~.

7. (Previously presented) A method of inhibiting telomerase activity, comprising the administering of chimeric oligonucleotides of claim 1 to a human tumor cell line.

8. Cancelled

9. (Currently Amended) The oligonucleotide of claim 1, wherein the oligonucleotide is bound to telomerase ~~thereby inhibiting telomerase catalytic activity~~.

10. (Previously Presented) The bound oligonucleotide~~s~~ of claim 9 wherein said binding to telomerase occurs either inside a eukaryotic cell or in the absence of intact eukaryotic cells.

11. (Previously Presented) The bound oligonucleotides of claim 10, wherein said binding to telomerase occurs inside a tumor cell.

12.-15 Cancelled

16. (Currently amended) The method of claim 7, wherein the oligonucleotide has the structure described in SEQ ID NO: 16 ~~SEQ ID NO: 1-28~~.

17. (Previously Presented) The bound oligonucleotide of claim 9 wherein the oligonucleotide is bound to the telomerase RNA component.

18. (Previously Presented) A method of inhibiting telomerase activity *in vitro* comprising contacting the chimeric oligonucleotides of claim 1 with telomerase under conditions permissive of oligonucleotide-telomerase binding.

19. (Previously Presented) An oligonucleotide according to claim 1 bound non-specifically to a protein site.

20. (Previously Presented) The bound oligonucleotide of claim 19 where the protein site is the primer binding site.

21. (Currently Amended) The oligonucleotides of claim 1 ~~claim~~ complexed with a cationic liposome.

22. (Previously Presented) The oligonucleotides according to claim 1, of formula III.